

REMARKS

This application is a continuing application of parent application Serial No. 09/265,225. The parent applicant remains pending and is being prosecuted to allowance.

The specification has been amended to correct an obvious typographical error.

Originally filed claims 1-4 have been cancelled and new claims 5-17 added.

Support for new claims 5 and 6 may be found in original claim 1. Support for new claim 7 may be found in original claim 3. Support for new claims 8, 9, 16 and 17 may be found on page 1, lines 14 and 15. Support for new claim 10 may be found in original claim 4. Support for new claim 11 may be found on page 1, lines 11 and 12. Support for new claim 12 may be found on page 5, lines 13-19 and in Examples 1-3. Support for new claims 13 and 14 may be found in original claim 2. Support for new claim 15 may be found on page 2, lines 3-4 and 14-15.

The first paragraph of the specification has been amended to correct an obvious typographical error.

No new matter has been added to the disclosure by way of these amendments.

Entry is respectfully requested.

As described within the specification, adhesives used in core and tube manufacturing industries must comprise enough water so that the adhesive is wet at the time of contact, but not so wet that the bond takes a long time to form. When using conventional liquid adhesives core and tube construction, as winder speed is increased the amount of time for water to dissipate decreases. Thus, adjustments by the operator of the machine must therefore be made in order to reduce the amount of adhesive applied.

Adjustment must be made to the adhesive application amount every time production speeds are changed.

Applicants have discovered that foamed adhesives can be used to prepare core and tubes using conventional high speed corewinding equipment and improve the efficiency of the core making process by allowing a much wider operating window of adhesive application amount during changes in production speed. By using foamed adhesives in accordance with the invention, corewinding equipment can be run up to 100% maximum line speed with no adjustment to application amount. Use of foamed adhesives in accordance with the invention also reduces the dimension change of the final core or tube and reduces the possibility of ply slippage and/or dog ears.

Claims 5-14, 16, and 17 were previously rejected under 35 U.S.C. § 103 (a) as being unpatentably obvious over Knauf (U.S. Patent No. 5,415,910) in view of Pole et al. (U.S. Patent No. 4,240,860). Claim 15 has been rejected under 35 U.S.C. § 103 (a) as being unpatentably obvious over Knauf in view of Pole et al. and further in view of Roe, Jr. (U.S. Patent No. 3,385,179).

Applicants respectfully disagree that the claimed subject matter would have been obvious to one skilled in the art from the combined disclosures of Knauf and Pole et al., alone or in further view of Roe, Jr.

Knauf discloses a tubular multilayered dough container and an inner lining therefor. Fig 2 is described as showing a multilayered container comprising an inner layer (liner) 20, a strength layer 22 and an outer (or label) layer 24, with adhesive layers 21 and 23 applied to adhere the three layers together (col. 3, lines 62-66). Fig. 3 is described as showing a portion of the liner 20, which comprises a glueable paper layer

34, an adhesive layer 33, a gas and moisture barrier layer, an adhesive layer 36 and a heat seal layer 38 (col. 4, lines 15-18). The barrier layer 32 is preferable aluminum foil.

When the layer is aluminum foil, it has applied and bonded there to a multilayer coextrusion comprising a polyethylene methylacrylic acid copolmer resin layer 36 such as NUCREL (Du Pont) or a polyethylene acrylic acid such as PRIMACOR (Dow) and a layer 38 of a heat sealing material, e.g., high density polyethylene (HDPE) (col. 4, lines 19-31). The use of a coextrusion is described as providing an excellent bond between the aluminum foil and the HDPE, the acrylic acid copolymer NUCREL or PRIMICOR effecting a better bond to aluminum than does HDPE (sentence bridging cols. 4 and 5).

Knauf discloses that adhesive other than NUCREL or PRIMICOR may be used to bond the paper layer to the aluminum foil (i.e., to the surface of the aluminum foil opposite the surface which has adhered thereto the coextruded layers 36 and 38). Examples include low density polyethylene (LDPE) or acrylic acid copolymers other than the NUCREL or PRIMACOR. Knauf discloses, that if desired, appropriate adhesives may include water-bases adhesives (col. 5, lines 19-50).

At most, Knauf discloses that appropriate water based adhesives may, if desired, be used to form the liner, without disclosing examples of appropriate adhesives or when it would be desirable to do so.

Knauf provides no disclosure or suggestion of what would be an appropriate water based adhesive let alone a foamed aqueous based adhesive as claimed by applicants. Pole et al. fails to cure the deficiencies of Knauf. Pole et al. fails to suggest that foamed aqueous based adhesives may be used in core and tube winding operations or indeed in applications described by Knauf so as to render claims 5-14, 16 and 17 obvious.

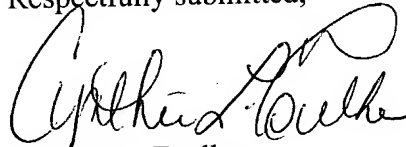
The disclosure of Roe, Jr. adds nothing to the disclosures of Knauf and Pole et al. so as to render claim 15 obvious.

To address specific assertions of the examiner, NUCREL and PRIMACOR are thermoplastic adhesives. The use of these resins as described by Knauf combined with the disclosure of Pole et al. would not lead one skilled in the art to use aqueous based foamed adhesives in tube and core winding as claimed by applicants.

It is well known that in order to establish a *prima facie* case of obviousness; three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference(s) must teach or suggest all the claimed limitations. Moreover, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicants' disclosure. See, *In re Vaack*, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP 214. The examiner has failed to meet these requirements. The prior art neither suggests, nor provides any motivation to use aqueous based foamed adhesives in tube and core winding as claimed by applicants. The prior art fails to provide teachings suggestive of a reasonable expectation of success. The prior art fails to teach or suggest all the claimed limitations. Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness, and using applicants' disclosure has merely selected and combined isolated disclosures of the references.

Early and favorable action is solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Cynthia L. Foulke".

Cynthia L. Foulke
Reg. No. 32,364

National Starch and Chemical Company
P.O. Box 6500
Bridgewater, New Jersey 08807-0500
(908) 685-7483

July 9, 2003